

Reply to Office Action dated November 29, 2004

REMARKS**I. Summary of the Office Action and this Reply**

Claims 1-18 are pending. The Examiner has rejected claims 1, 2, 7, 8, 13 and 14 under 35 U.S.C. §102(e), asserting that such claims are anticipated by U.S. Patent No. 6,704,736 to Rys et al. ("Rys"). The Examiner has rejected claims 3, 9 and 15 under 35 U.S.C. §103(a), asserting that such claims are obvious over Rys in view of U.S. Patent Publication No. 2001/0047394 to Kloba et al. ("Kloba"). The Examiner has rejected claims 4, 10 and 16 under 35 U.S.C. §103(a), asserting that such claims are obvious over Rys in view of U.S. Patent Publication No. 2002/0184485 to Dray et al. ("Dray") in view of U.S. Patent No. 5,745,570 to Voldal ("Voldal"). The Examiner has rejected claims 5, 11 and 17 under 35 U.S.C. §103(a), asserting that such claims are obvious over Rys in view of Kloba, Dray and Voldal. The Examiner has rejected claims 6, 12 and 18 under 35 U.S.C. §103(a), asserting that such claims are obvious over Rys in view of U.S. Patent No. 6,681,221 to Jacobs.

In this Reply, claims 1, 4, 5, 7, 8, 10, 11 and 13-18 are amended; new claim 19 is added. No new matter is added; support for the amended claims can be found, *inter alia*, in Figs. 5A, 5C, 6B, 7A, 8A and 9A, and at page 8, lines 14-20.

Further, Figs. 1A and 1B are amended herein in accordance with the Examiner's request in paragraph 1 of the Action, namely to include a "PRIOR ART" legend. A Replacement Sheet of drawings is submitted herewith. The specification is amended to insert quotations marks and make other corrections in response to the Examiner's comments in paragraph 2 of the Action.

II. Discussion of the Cited Art

Rys discloses a method and apparatus for transforming hierarchical information, such as an XML data file, into a database table (rowset) so that the information in the database table can be processed using a query language, such as SQL. Abstract; col. 5, lines 29-32. More specifically, a parser 307 of a computer system 203 converts an XML data file 205 into a format that is capable of being efficiently accessed and processed by a query processor 311 of the computer system 203. Col. 5, lines 50-55; col. 6, lines 16-18; Figures 2 and 3. The query processor 311 extracts information, such as row, column and metaproperty information, from a query 315, processes the XML data file 205. Col. 6, lines 47-52. The query processor 311 receives information from an active store 309 and selects the information that matches the query to form a rowset 207. Accordingly, the XML data 205 is processed as rowset information in a relational database model. Col. 6, line 53 - col. 7, line 5.

III. Response to 102 Rejections

A rejection under 35 U.S.C. §102 is proper only if each and every element of the claim is found in a single prior art reference. MPEP § 2131. The Examiner has rejected claims 1, 2, 7, 8, 13 and 14 under 35 U.S.C. §102(e), asserting that each and every element of these claims are found in Rys.

Claims 1, 7 and 13

Independent claim 1 is directed to a method of controlling access by a parent node to child nodes in a DOM tree corresponding to a data file. The method includes:

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assigning a parent-node context-value to said parent node, said parent-node context-value being stored as character information in the data file;
assigning a child-node context-value to each of said child nodes, said parent-node context-value being stored as character information in the data file;
correlating one or more of said child nodes to said parent node; and
permitting access by said parent node only to said correlated child nodes.

The Examiner asserts that this is taught by Rys, citing col. 7, lines 34-41 and 45-47, which relate to Rys' use of metaproperties.

As discussed above, Rys discloses a method and apparatus for transforming an XML data file, etc. into a database table (rowset). To do so, Rys requires use of metaproperties. As stated in Rys:

Metaproperties are useful and necessary in transforming XML data into a rowset A metaproperty is a property associated with an XML data file . . . that is not explicitly included as character information contained in the XML data file [emphasis added]. Col. 7, lines 15-20.

Rys further states that:

A metaproperty is a property associated with an XML data file that is not explicitly included as character information contained in the XML data file. [emphasis added]. One embodiment of the present invention includes the following metaproperties: ID, parent, parent ID, previous (and/or next) neighbor, datatypes, and DOM node type. Col. 7, lines 34-39; see col. 7, lines 39-47.

Accordingly, a metaproperty is a relational or identity type of observation relating to character information contained in the XML data file. As repeatedly emphasized in Rys, a metaproperty is not included as character information in the XML data file. As discussed above, and as shown in Figures 2, 3 and 4A, the metaproperties are entirely separate from any data contained in the data file, they are mere observations relating to the data contained in the data file.

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In contrast, claim 1 recites "assigning a parent-node context-value to said parent node, said parent-node context-value being stored as character information in the data file" and "assigning a child-node context-value to each of said child nodes, said parent-node context-value being stored as character information in the data file." Accordingly, the content-values of claim 1 are included as character information in the data file. The content values are attributes of associated nodes. See application, page 3, line 14 - page 4, line 2. Thus, the content values are character information included in the data file. Claim 1 is amended herein for clarification to emphasize that content-values appear in the data file itself. As a result, the DOM tree nodes have related content values. Rys fails to provide any such disclosure and thus fails to teach all claim limitations.

Further, Rys neither teaches nor suggests "permitting [or limiting] access by said parent node only to said correlated child nodes." To the contrary, Rys provides absolutely no disclosure of limiting access to child nodes. Rys discloses only that there are metaproperties that identify, or identify relationships among, certain nodes, etc. Rys does not provide any disclosure that its metaproperties, which are distinct from the content-values recited in claim 1 as discussed above, are used in any way to limit access to only certain child nodes.

Further still, claim 1 recites "correlating . . . child nodes to said parent node" and "permitting access . . . only to said correlated child nodes." As defined in the specification:

The child nodes are accessible when their context value or attribute is identical to that of their parents; this relationship is referred to herein as a "correlation" between the context of the parent and the context of the

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children, and a child node so correlated is referred to herein as a "correlated node." Page 6, lines 3-7.

This also is neither taught nor suggested by Rys.

Further still, Rys operates according an entirely different principle of operation than the claimed invention. More particularly, Rys discloses use of an entirely conventional XML data file, and relies upon converters, parsers, and/or query processors to process information from the original data file, create a related database table, and allow for subsequent processing of related rowset information in a relational database model. In contrast, the claimed invention teaches use of a novel XML data file that has been modified to include a context attribute in the character information of the data file for each node, correlation of parent and child nodes as a function of the similarity of their respective context values, and limiting parent node access to child nodes as a function of the similarity of their respective context values. This is neither taught nor suggested by Rys, and to modify Rys in a similar manner would change the principle of operation of Rys and/or render Rys inoperable for its intended purpose.

Independent claims 7 and 13 include similar recitations.

For at least these reasons, reconsideration and withdrawal of the rejection of claims 1, 7 and 13 are requested respectfully.

Claims 2, 8 and 14

Claims 2, 8 and 14 depend from claims 1, 7 and 13, respectively, and are likewise patentable. Thus, reconsideration and withdrawal of the rejection of claims 2, 8 and 14 are requested respectfully.

IV. Response to 103 Rejections

A section 103 rejection is proper only if all claim limitations are taught or suggested by the cited art. MPEP §2143.

Claims 3-6, 9-12, 15-18 and 19

Claims 3-6, 9-12 and 15-18 stand rejected over various combinations of Rys, Kloba, Drey, Voldal and Jacobs. These claims depend from patentable claims, as set forth above, and are thus patentable.

In addition, claims 4, 5, 10, 11, 16 and 17 recite that "each of said parent node and said child nodes is assigned a name, said name being stored as character information in the data file, and wherein each of the names assigned to said child nodes is encrypted at the time it is assigned, and wherein said step of permitting access comprises at least the step of: decrypting the names of each correlated child node."

Regardless of whether Dray and/or Voldal teach or suggest encryption of nodes, both Dray and Voldal fail to teach or suggest: (1) "assign[ing] a name . . . stored as character information in the data file" and (2) "assign[ing] a name . . . [that] is encrypted at the time it is assigned." Further, Dray and Voldal fail to teach correlation of child nodes (see discussion above), and "decrypting the names of each correlated child node." Accordingly, the cited art fails to teach or suggest all limitations of claims 4, 5, 10, 11, 16 and 17.

For at least these additional reasons, reconsideration and withdrawal of the rejections of claims 4, 5, 10, 11, 16 and 17 are requested respectfully.

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New independent claim 19 includes similar recitations and is likewise patentable for the reasons set forth above for claims 1, 2 and 4. Allowance of new claim 19 is requested respectfully.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants believe claims 1-19 to be patentable and the application in condition for allowance, and request respectfully issuance of a Notice of Allowance. If any issues remain, the undersigned requests a telephone interview prior to the issuance of an action.

Respectfully submitted,

Date: March 29, 2005


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AMENDMENTS TO THE DRAWINGS

Kindly replace original drawing sheet 1/10 (including Figs. 1A and 1B) with the corresponding Replacement Sheet submitted herewith.